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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/565,611	01/23/2006	James A. Graf	P786.101.102	2552

28020 7590 01/23/2009

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EXAMINER	
COLAN, GIOVANNA B	
ART UNIT	PAPER NUMBER
2162	
MAIL DATE	DELIVERY MODE
01/23/2009	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/565,611	GRAF ET AL.	
	Examiner	Art Unit	
	GIOVANNA COLAN	2162	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *07 November 2008*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *119-126* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *119-126* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date *01/23/2006*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

1. This action is issued in response to applicant response to election filed 11/07/2008.

2. No claims were amended. No claims were added. Claims 1 – 118, and 126 – 136 are cancelled.

3. Claims 119– 126 are pending.

4. Claims 126 – 136 are withdrawn from further consideration pursuant to 37 CFR 1.142(b) as being drawn to a nonelected invention, there being no allowable generic or linking claim. Election was made **without** traverse in the reply filed on 09/23/2008.

Claim Objections

5. Claims 119 – 126 are objected to because of the following informalities:

Regarding Claim 119, the limitation "using the optimized model to…" appears to be directed to language of intended use.

According to MPEP 2106 "The subject matter of a properly construed claim is defined by the terms that limit its scope. It is this subject matter that must be examined. As a general matter, the grammar and intended meaning of terms used in a claim will dictate whether the language limits the claim scope. Language that suggests or makes optional but does not require steps to be performed or does not limit a claim to a particular structure does not limit the scope of a claim or claim limitation. The following are examples of language that may raise a question as to the limiting effect of the language in a claim:

(A) statements of intended use or field of use,

(B) "adapted to" or "adapted for" clauses,

(C) "wherein" clauses, or

(D) "whereby" clauses."

Claims 119 and 123 set forth a plurality of elements or steps; however, each element or step of the claim is not separated by a line indentation.

According to MPEP 608.01: "(j) CLAIM OR CLAIMS: See 37 CFR 1.75 and MPEP § 608.01(m). The claim or claims must commence on a separate sheet or electronic page (37 CFR 1.52(b)(3)). Where a claim sets forth a plurality of elements or steps, each element or step of the claim should be separated by a line indentation. There may be plural indentations to further segregate subcombinations or related steps."

Appropriate correction is required.

Claim Rejections - 35 USC § 112

6. The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

7. Claims 119 – 126 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

8. Claim 119 recites the limitation "the term of the document type" in line 8, “the terms manually tagged to the extraction template” in line 9, “the term extraction models” in line 11, and “the control set tagging” in line 12; claim 122 recites “the model selector” in line 20; and claim 123 recite “the result” in line 1. There is insufficient antecedent basis for these limitations in the claims.

9. The term "the best compliance" in claim 119 is a relative term which renders the claim indefinite. The term "the best compliance" is not defined by the claim, the specification does not provide a standard for ascertaining the requisite degree, and one of ordinary skill in the art would not be reasonably apprised of the scope of the invention.

Claim Rejections - 35 USC § 101

10. 35 U.S.C. 101 reads as follows:

> Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

11. Claims 119 - 126 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter.

Claim 119 recites a “method for automating…”. However, the method/process fails to: (1) tied to another statutory class (such as a particular apparatus) and (2) transform underlying subject matter (such as an article or materials) to a different state or thing (*In re Bilski*, 88 USPQ2d 1385 (2008); *Diamond v. Diehr*, 450 U.S. 175, 184 (1981); *Parker v. Flook*, 437 U.S. 584, 588 n.9 (1978); *Gottschalk v. Benson*, 409 U.S.

63, 70 (1972); *Cochrane v. Deener*, 94 U.S. 780, 787-88 (1876)). Therefore, the method recited in claim 119 is not patentable eligible processes under 35 USC § 101 since they are directed to non-statutory subject matter.

Claim Rejections - 35 USC § 103

12. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

13. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

14. Claims 119 – 120 are rejected under 35 U.S.C. 103(a) as being unpatentable over Fukuda, Kenichi (Fukuda hereinafter) (JP -08063483, published: 03/08/1996) in view of Isozaki, Hidaki (Isozaki hereinafter) (JP-2001-318792A, published: 11/16/2001).

Regarding Claim 119, Fukuda discloses a method for automating the extraction of information from a semi-structured document characterized by a document type that comprises design and structural characteristics of a set of similar documents, the method comprising:

designing a target extraction template for the terms of the document type ([0011], Fukuda);

supporting the creation of a control set of documents containing the terms manually tagged to the extraction template ([0011] and Fig. 1, items 71, I1, and 72, Fukuda).

Fukuda also discloses automatically generating a skeleton of extraction model ([0022], Fukuda). However, Fukuda does not expressly disclose a tree. On the other hand, Isozaki discloses: automatically generating a skeleton of extraction model tree for every term (Page 21, [0067], Isozaki). It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Fukuda by incorporating a tree, in the same conventional manner as disclosed by Isozaki. Skilled artisan would have found it motivated to use such a modification in order to provide a type of intrinsic representation extraction rule that allow generation of high-precision intrinsic rules easily in a short time and allow correct extraction of the desired intrinsic representations from a large document (see [0008], Isozaki).

Furthermore, the combination of Fukuda in view of Isozaki (Fukuda/Isozaki hereinafter) discloses:

training the models by automatically optimizing selectors of the term extraction models to the best compliance with the control set tagging ([0049], and [0050], Isozaki); and

using the optimized model to automatically extract information from the document ([0054], Isozaki).

Regarding Claim 120, Fukuda/Isozaki discloses a method, further comprising using specialized invariants to select generic components of information from the document ([0029], Isozaki).

15. Claims 121 – 126 are rejected under 35 U.S.C. 103(a) as being unpatentable over Fukuda, Kenichi (Fukuda hereinafter) (JP -08063483, published: 03/08/1996), in view of Isozaki, Hidaki (Isozaki hereinafter) (JP-2001-318792A), and further in view of Bernstein, A. et al. (Bernstein hereinafter) ("Discovering Knowledge from Relational Data Extraction from Business News"; Stem School of Business; New York University, NY; CeDER Working Paper #IS-02-03; it appeared at the SIGKDD-2002 Workshop on Multi-Relational Data Mining).

Regarding Claim 121, Fukuda/Isozaki discloses all the limitations as disclosed above including changes ([0001], Fukuda). However, Fukuda/Isozaki does not expressly disclose tracking and analyzing changes. On the other hand, Bernstein discloses: tracking and analyzing changes made to initially extracted information and subsequent

re-optimization of models (Page 11, 3rd paragraph under section “Discussion”; Bernstein). It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Fukuda/Isozaki by incorporating the tracking and analyzing of changes, in the same conventional manner as disclosed by Bernstein. Skilled artisan would have found it motivated to use such a modification in order to provide more involved techniques to determine the "centrality” of the companies in an industry, as well as relatedness of a company to any given industry (Page 2, 5th paragraph under section “introduction”, Bernstein).

Regarding Claim 122, the combination of Fukuda in view of Isozaka and further in view of Bernstein (Fukuda/Isozaki/Bernstein hereinafter) discloses a method, further comprising analyzing an additional semi-structured document and updating the model selectors or its structure if a change in accuracy of the term extraction model exceeds a threshold (Page 9, 1st paragraph of the page, Bernstein).

Regarding Claim 122, Fukuda/Isozaki/Bernstein discloses a method, further comprising:

(a) retaining specific information about a set of semi-structured documents to serve as a template for new semi-structured document introduction ([0011], Fukuda; and Page 8, 2nd paragraph of the page, Bernstein);

(b) comparing any new semi-structured document with a pattern represented by specific information known to be suitable for searching for text based on the retained

specific information about the set of semi-structured documents (Page 8, 2nd paragraph of the page, Bernstein);

(c) assessing if the result of (b) is within a threshold of the result of (a) (Page 9, 1st paragraph of the page, Bernstein).

Regarding Claim 124, Fukuda/Isozaki/Bernstein discloses a method, as applied to knowledge that a given company employs similar patterns for subsequent versions of similar documents identifying the company to which the documents pertain (Page 10, 1st paragraph of the page, Bernstein).

Regarding Claim 125, Fukuda/Isozaki/Bernstein discloses a method, in which terms can be assigned a term class for at least one of immediate validation, synonym support, and vocabulary management (Page 12, 4th paragraph of the page, Bernstein).

Regarding Claim 126, Fukuda/Isozaki/Bernstein discloses a method, further comprising automatically comparing first and second extracted data to each other to identify extraction errors (Page 8, 2nd paragraph of the page, Bernstein).

Points of Contact

Any inquiry concerning this communication or earlier communications from the examiner should be directed to GIOVANNA COLAN whose telephone number is (571)272-2752. The examiner can normally be reached on 8:30 am - 5:00 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John Breene can be reached on (571) 272-4107. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Giovanna Colan
Examiner
Art Unit 2162
January 15, 2009

/John Breene/
Supervisory Patent Examiner, Art Unit 2162